ICT for Administration of Land Tenure and Property Rights

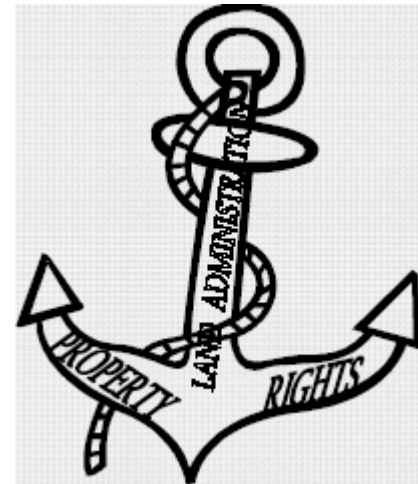ICT@USAID Series Presentation

8 February 2006

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Overview

- Land Tenure and Property Rights Administration (5 minutes)

- ICT Tools (15 minutes)

- Lessons Learned from the Philippines, Albania, and East Timor (20 minutes)

- Discussion (20 minutes)

Tenure and Property

- Tenure = right to own or use
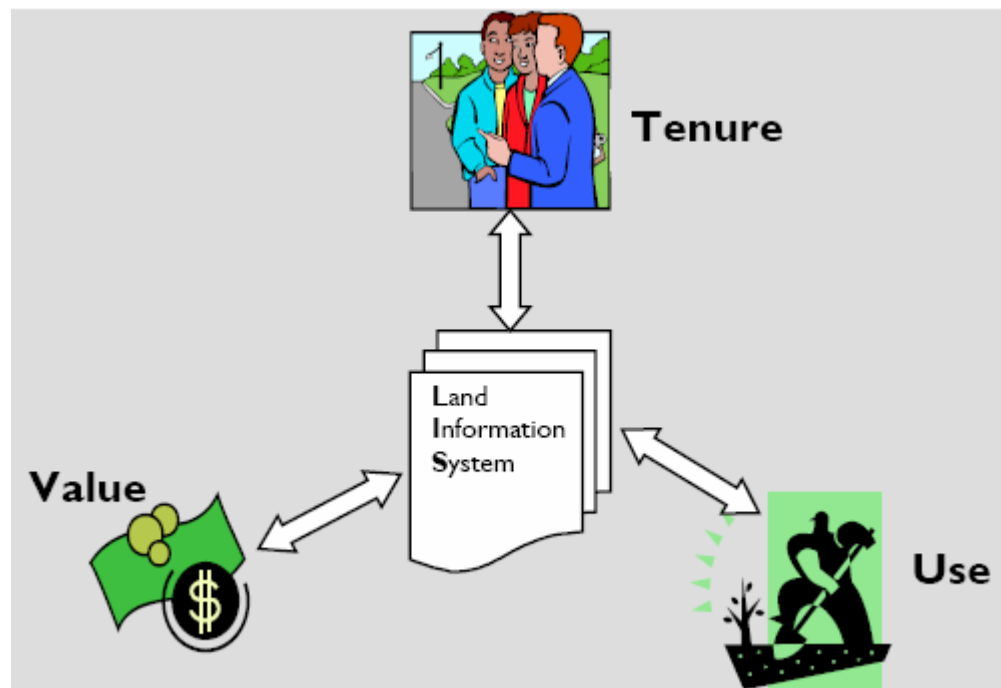- Property = land and permanent immovable objects

Land Administration Systems

Register Rights and Identify Properties

Four Land Administration Functions

1. **Tenure:** specific rights to specific properties.

2. **Use:** define and enforce.

3. **Value:** for taxation, appraisal to support land markets, leasing of state properties.

4. **Information:** updating, protecting, and distributing.

ICT Tools, but …

- Computerized Databases
- Geographic Information Systems (GIS)
- Aerial Photography
- Remote Sensing
- Global Positioning Systems (GPS)
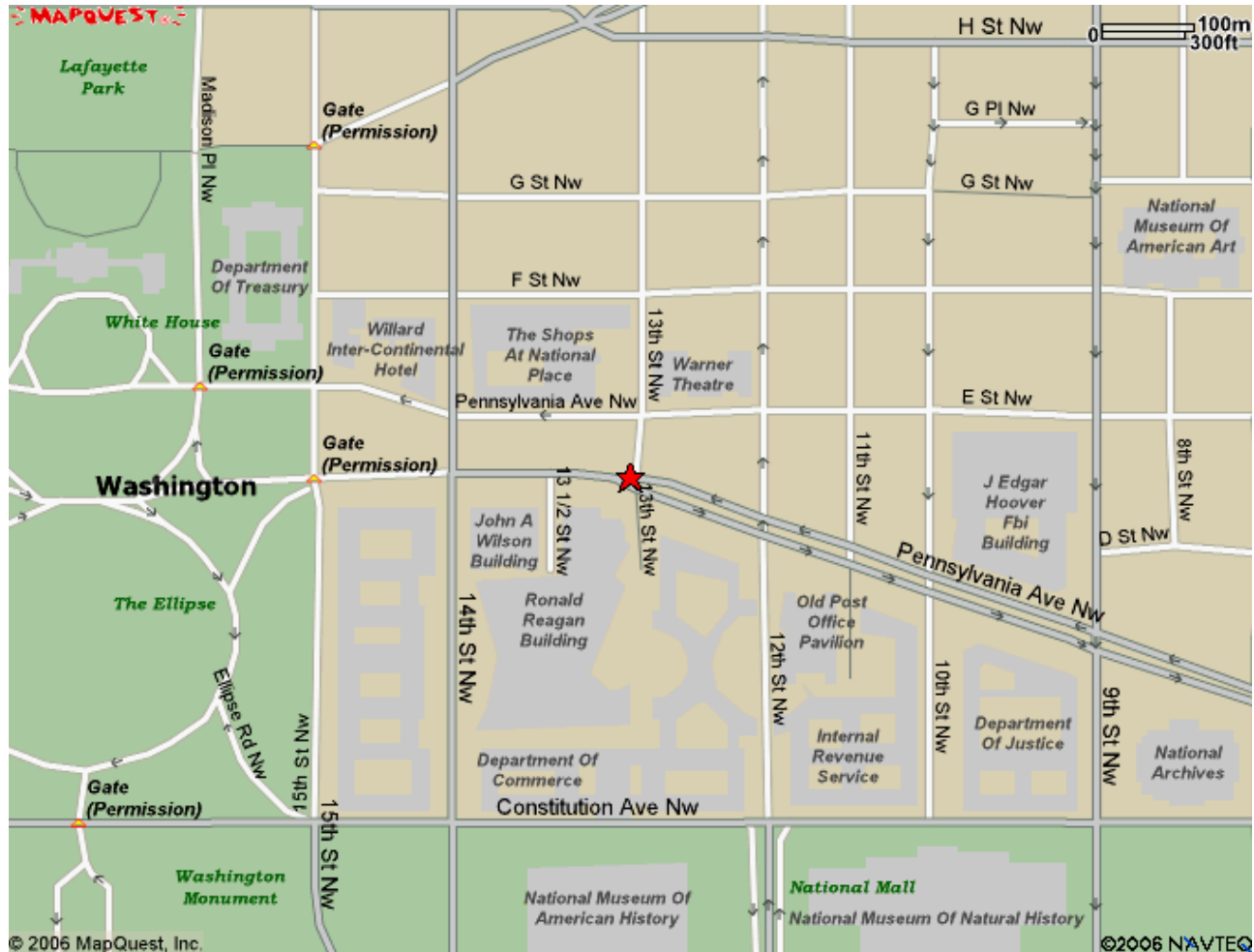- Digital Cameras
- Networks

Databases

- Owners
- Value
- Technical Description
- Unique Property ID Number
- Transactions

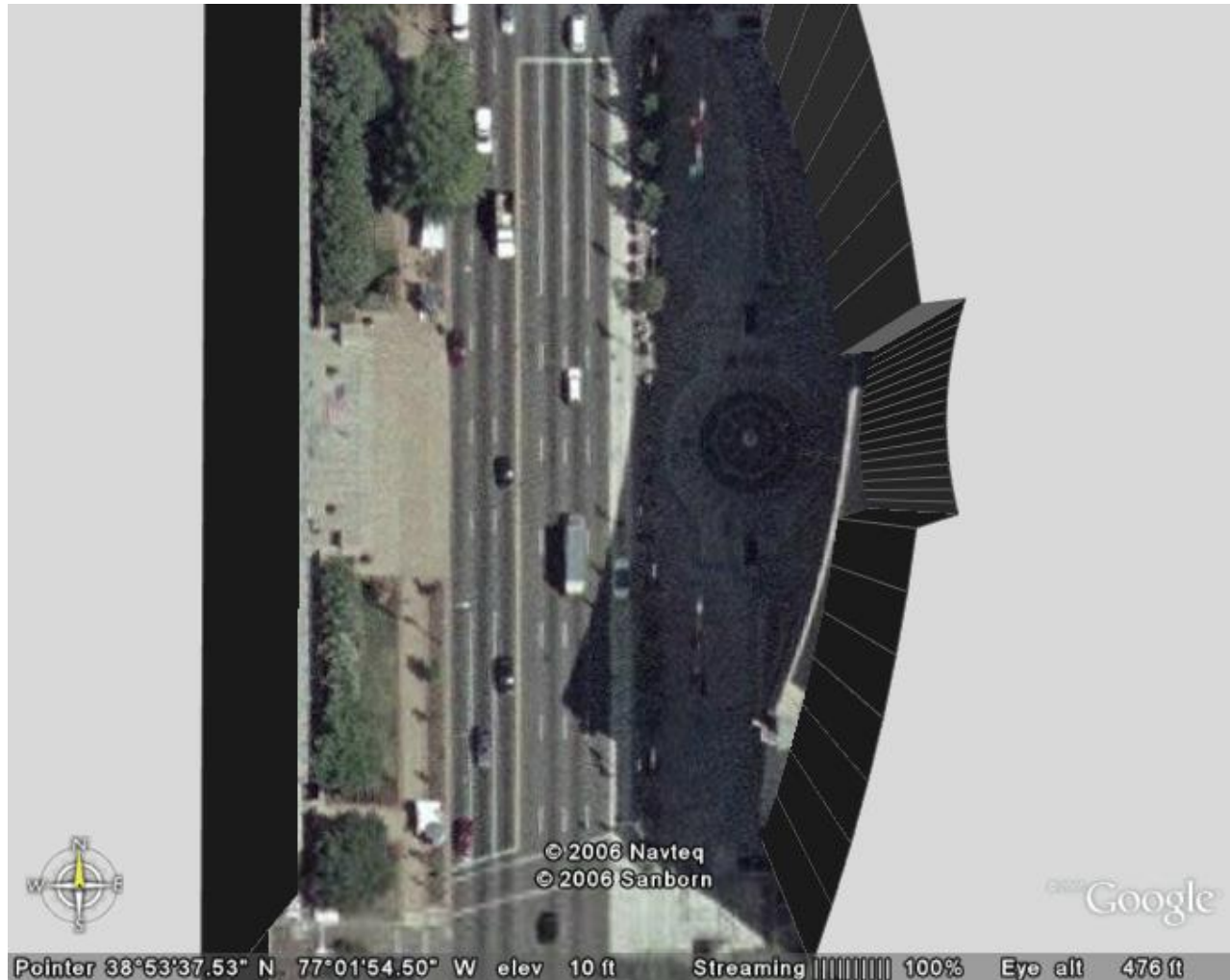# Geographic Information Systems

Computerized Mapping

Satellite Photography
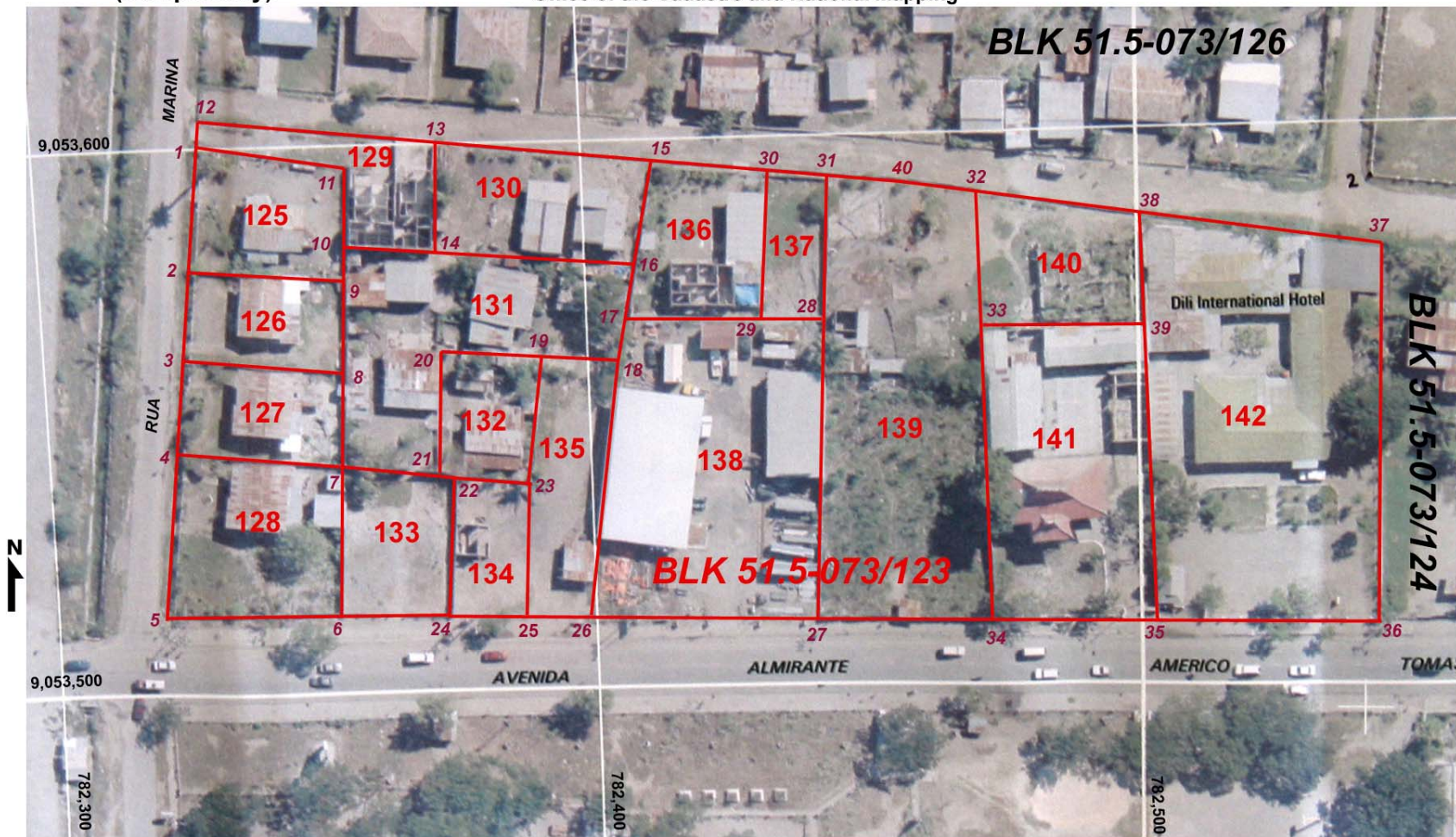
High Resolution Aerial Photography

BLOCK MAP 51.5-073/123
(Sample only)

Ministry of Justice
Directorate of Land and Property
Office of the Cadastre and National Mapping

DILI - Farol Area
1:10,000 Cadastral map 51.5-073

BLK 51.5-073/126

BLK 51.5-073/124

MARINA

9,053,600

129
130
125
136
137
140
126
131
Dili International Hotel
127
132
135
139
141
142
128
133
138
134

BLK 51.5-073/123

RUA

AVENIDA   ALMIRANTE   AMERICO   TOMAS

9,053,500

782,300   782,400   782,500

N

Surveyed by

....Surveyor's Name ....Date of Survey

....Surveyor's Signature

Map Scale   1:500

Map Projection: UTM Zone 51
Datum: WGS 84

Boundary point no.: **25**
Parcel no.: **134**
UPI derived by adding parcel no. to 1:10,000 Cad Map No.: = 51.5-073.134
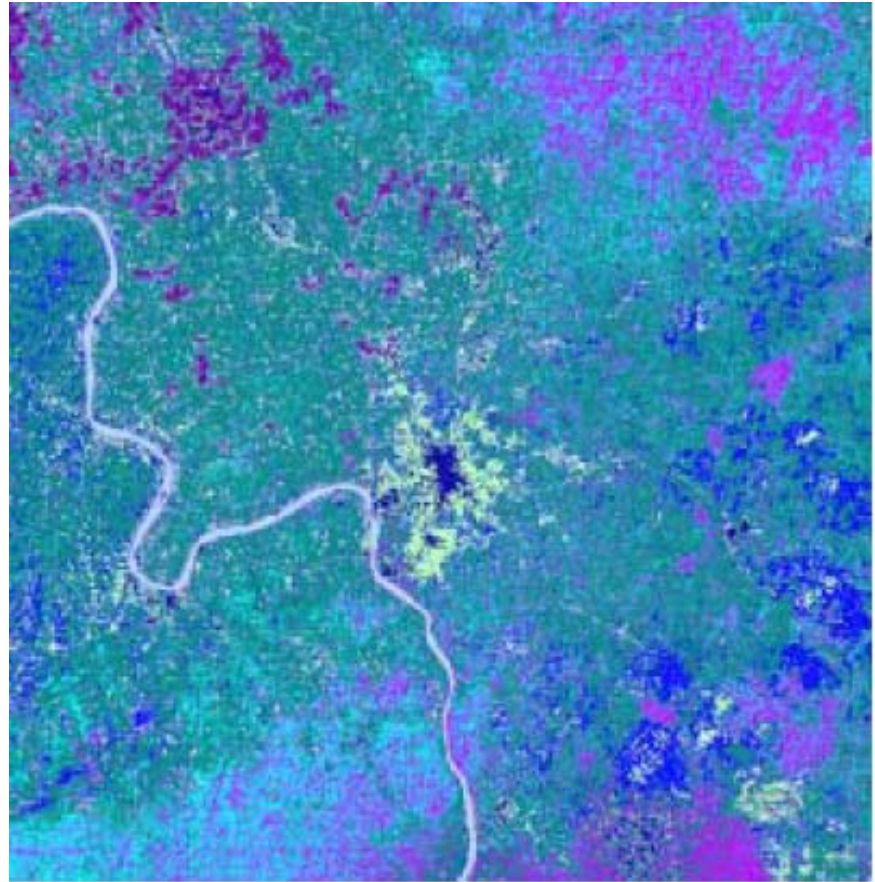
District: ....

Sub District: ....

Suco: ....

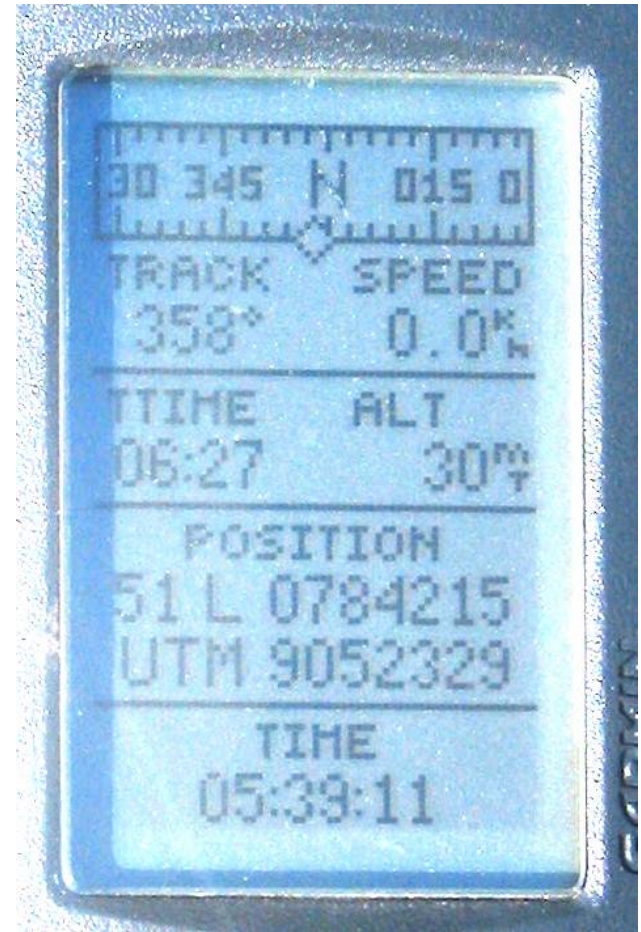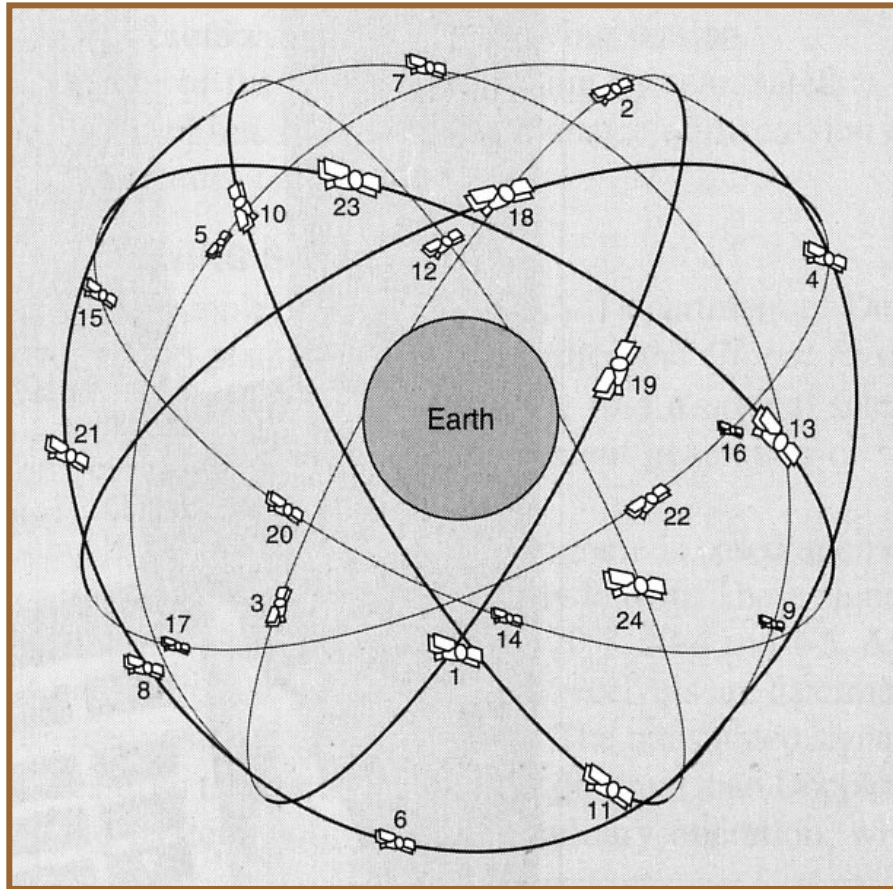Aldeia: ....

Remote Sensing

Listening to pixels: In this portion of a satellite image near the town of Ikom, located on the Cross River, each pixel is given a color based on land cover. For example, bright purple indicates areas of virgin forests; light violet, areas of secondary forest. Urban areas are shown in dark blue, and the light-green color indicates an "other" category—usually mixed pixels that cannot be accurately associated with a single land cover category.

Global Positioning System

Digital Photography

Networks

Server

Network
Hub

INTERNET

ICT Tools, but …

Information Systems often fail because the emphasis is on the technology, and not on those who are meant to use and benefit from it.

Philippines Land Titling Computerization Project

- Well-established "Torrens" system
- Internally driven
- USTDA Technical Assistance
- Private sector financed
- Long-term implementation
- Processes Re-engineered
- Total conversion to digital media

Albania

- Post-conflict environment
- Transitioning from deeds to registry system
- Heavily donor financed "First Registration"
- ICT's applied to initialize, but manual systems remain in place
- Public information and education key
- Transparency dramatically reduced conflict

East Timor

- Post conflict
- Starting from scratch
- Aerial photographs a key resource
- Restitution, compensation, claims resolution, privatization, all require "preliminary cadastre"
- Digital documentation

Conclusion

- The technology is the easy part, the human context is the real challenge

- While expensive, high connectivity leads to essential synergies

- Digital technologies carry a bias towards transparency, a critical component of successful administration of land tenure and property rights